05-GF-113
(1330)

January 28, 2003

Mr. Jim Loock, Chief Electric Engineer
Public Service Commission
610 N. Whitney Way
P.O. Box 7854
Madison, WI 53707-7854

RE: In the Matter of Filing Reporting Requirements for Appropriate Inspection and Maintenance, PSC Rule 113.0607(6)

Dear Mr. Loock:

Enclosed for filing are 3 copies of Consolidated Water Power Company's report to the commission, submitted every two years, showing compliance with its Preventative Maintenance Plan.

Very truly yours,

Gary R Romanski

Gary R Romanski
Operations Manager

Enclosures

CONSOLIDATED WATER POWER COMPANY
GENERAL OFFICES
P. O. BOX 8050, WISCONSIN RAPIDS, WI 54495-8050

TWO YEAR REPORT DOCUMENTING COMPLIANCE WITH THE PREVENTATIVE MAINTENANCE PLAN

Consolidated Water Power Company

FILING DEADLINE
FEBRUARY 1, 2003

January 28, 2003

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This report format was prepared by the MEUW work group for PSC Rule 113.0607 for use by the 82 municipal electric utilities in Wisconsin and endorsed by PSC staff as meeting the requirements of Rule PSC 113.0607.

I Reporting Requirements: PSC 113.0607(6) states;

Each utility shall provide a periodic report to the commission showing compliance with its Preventative Maintenance Plan. The report shall include a list of inspected circuits and facilities, the condition of facilities according to established rating criteria, schedules established and success at meeting the established schedules.

II Inspection Schedule and Methods:

SCHEDULE:	MONTHLY	ANNUAL	EVERY 5 YEARS
Transmission (≥69Kv)		X	X
Substations	X	X	
Distribution (OH & UG)			X

METHODS: Five criteria groups will be used to complete the inspection of all facilities.

1. IR – infrared thermography used to find poor electrical connections and/or oil flow problems in equipment.
2. RFI - Radio Frequency Interference, a byproduct of loose hardware and connections, is checked using an AM radio receiver.
3. SI – structural integrity of all supporting hardware including poles, crossarms, insulators, structures, bases, foundations, buildings, etc.
4. Clearance – refers to proper spacing of conductors from other objects, trees and conductors.
5. EC – equipment condition on non-structural components such as circuit breakers, transformers, regulators, reclosers, relays, batteries, capacitors, etc.

Distribution facilities will be inspected by substation circuits on a 5 year cycle such that the entire system will be inspected every 5 years. Inspector instructions for inspecting all facilities and forms are included in the plan.

III Condition Rating Criteria

This criterion, as listed below, establishes the condition of a facility and also determines the repair schedule to correct deficiencies .

0) Good condition
1) Good condition but aging
2) Non-critical maintenance required – normally repair within 12 months
3) Priority maintenance required – normally repair within 90 days
4) Urgent maintenance required – report immediately to the utility and repair normally within 1 week

IV Corrective Action Schedule

The rating criteria as listed above determine the corrective action schedule.

V Record Keeping

All inspection forms and records will be retained for a minimum of 10 years. The inspection form contains all of the required critical information i.e. inspection dates, condition rating, schedule for repair and date of repair completion.

VI Reporting Requirements

A report and summary of this plan's progress will be submitted every two years with the first report due to the Commission by February 1, 2003. The report will consist of a cover letter documenting the percent of inspections achieved compared to the schedule and the percent of maintenance achieved within the scheduled time allowance.

VII Inspected Circuits and Facilities

Circuit # and description	Substation
Circuit 2-53s Highway 54 feed	**Biron Village Substation**
Circuit 2-54s North Biron Drive feed	**Biron Village Substation**
Circuit 2-55s 32nd ST and S. Biron Dr.	**Biron Village Substation**
Circuit 2-56 s Emergency Feed S. Biron	**Biron Village Substation**
Circuit 2-39s DuBay Hydro Plant	**Biron Steam Substation**
Circuit 2017s Petenwell Transmission	**Substation owned by WPS and Alliant**
Circuit 5-60s 64PM to Woodyard sub	**64PM Substation**
Circuit 5-100 Woodyard to Westside sub	**Woodyard Substation**
Circuit 5-24 Westside to Stevens Point sub	**Westside Substation**
Circuit 2-1 Steam to WQC sub	**Water Quality Substation**
Circuit 29-1 WQC sub to Kraft sub	**Kraft Substation**

Circuit 9-1 Kraft to Hot Pond sub	**Hot Pond Substation**
Circuit 2-36s Steam to Grand Rapids sub	**Grand Rapids Substation**
Circuit 1-3s Hydro to Grand Rapids	**Grand Rapids Substation**

Base load and peaking generation, less than 50 megawatts per unit in size, is typically subject to pre-operational checks, in addition to checks and maintenance during and after periods of operation. Emergency generation is test run and maintained every *30 days* to confirm its operational readiness.

VIII Scheduling Goals Established and Success of Meeting the Criteria:

It was Consolidated Water Power Company's (CWPCO) goal to complete monthly inspections on all 17 substations, of which 1 feeds 1151 residential customers and 16 feed StoraEnso Paper Mill loads.
CWPCO owns one transmission line and planned to inspect it annually and make repairs as identified by the the inspection. CWPCO also planned to inspect 50 % of the distribution system over 2 years and make repairs as necessary within the time periods specified.

Monthly substation inspections were completed on time.
The annual transmission line inspection was completed in 2001 and 2002. 35 priority maintenance items were identified over the 2 year period. All repairs to the transmission line were completed within the given time frames.
100 % of the residential distribution system was inspected in December of 2002. Two urgent items were identified and repaired immediately. 25 priority items were also identified and are in the process of being corrected. 54 items were identified as non critical and are scheduled to be corrected by the end of the first quarter of 2003.
75% of the distribution system feeding the Paper Company was inspected. 13 priority items were identified and repaired.

IX Facility condition – rating criteria:

100% of the residential distribution system was inspected in December of 2002. All substation inspections were completed on time during the past 2 years. All repair items identified were repaired on time.
CWPCO has installed automated meter reading equipment on all residential, commercial and light industrial customer services during 2001 and 2002. New power factor correction equipment was installed on the residential distribution system in 2002.

Equipment failures have accounted for two outages to the Paper Mill distribution. No residential customers were affected by these failures.
There were two storm related outages, one in June of 2001, that devastated Central Wisconsin and did major damage to the CWPCO residential distribution system. This outage affected 50% of the residential customers with 5% out of power for up to 4 days.

The second outage was in October of 2002. Heavy wet snow and ice caused an outage that affected 100 customers.

While portions of the distribution system date back to the late 1940's, the system is in very good condition. The main distribution line feeding the residential customers was completely replaced in 1993. CWPCO has always taken a proactive approach to preventative maintenance. CWPCO currently has four active capital work orders issued for pole condition sampling, pole replacements, cross arm replacements and distribution system upgrades.